

DOCKET NO. 2003.11.022.WS1
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PATENT

IN THE CLAIMS

The current claims follow. For claims not marked as amended in this response, any difference in the claims below and the previous state of the claims is unintentional and in the nature of a typographical error.

Claims 1-20 (Cancelled)

21. (Currently Amended) For use in a wireless network comprising a first base transceiver station capable of establishing and maintaining communication links with a plurality of mobile stations by means of a plurality of data traffic channels, an apparatus for allocating said plurality of data traffic channels comprising:

an access request detection circuit capable of detecting an access request message received from an accessing one of said plurality of mobile stations and generating an access request notification; and

a channel allocator capable of receiving said access request notification and, in response thereto: 1) terminating a first communication link between said first base transceiver station and a first selected one of said plurality of mobile stations, wherein said first selected mobile station maintains at least a second communication link with at least a second base transceiver station of said wireless network, and 2) allocating said a first data traffic channel associated with said terminated first communication link to establish a communication link with said accessing mobile station.

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22. (Original) The apparatus as set forth in Claim 21 wherein said channel allocator is capable of determining if one of said plurality of data traffic channels associated with said first base transceiver station is unused prior to terminating said first communication link between said first base transceiver station and said first selected mobile station.

23. (Original) The apparatus as set forth in Claim 22 wherein said channel allocator allocates an unused one of said plurality of data traffic channels associated with said first base transceiver station to establish a communication link with said accessing mobile station in lieu of terminating said first communication link and allocating said first data traffic channel associated with said terminated first communication link to establish a communication link with said accessing mobile station.

24. (Original) The apparatus as set forth in Claim 21 further comprising a memory coupled to said channel allocator, wherein said memory is capable of storing status data associated with said plurality of communication links maintained by said first base transceiver station with said plurality of a mobile stations.

25. (Original) The apparatus as set forth in Claim 24 wherein said status data comprises a received signal strength indicator associated with each of said plurality of communication links.

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26. (Original) The apparatus as set forth in Claim 25 wherein said status data comprises handoff state data indicating whether each mobile station associated with each of said communication links maintains communication links with at least two base transceiver stations.

27. (Original) The apparatus as set forth in Claim 26 wherein said channel allocator determines a weakest received signal strength indicator associated with one of said plurality of mobile stations maintaining communication links with at least two base transceiver stations.

28. (Original) The apparatus as set forth in Claim 27 wherein said channel allocator selects said communication link associated with said weakest received signal strength indicator to be said terminated first communication link.

29. (Currently Amended) A wireless network comprising:
a plurality of base transceiver stations, wherein each of said plurality of base transceiver stations is capable of establishing and maintaining a plurality of communication links with a plurality of mobile stations by means of a plurality of data traffic channels; and

an apparatus associated with a first one of said base transceiver station for allocating said plurality of data traffic channels associated with said first base transceiver station, said apparatus comprising:

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an access request detection circuit capable of detecting an access request message received from an accessing one of said plurality of mobile stations and generating an access request notification; and

a channel allocator capable of receiving said access request notification and, in response thereto: 1) terminating a first communication link between said first base transceiver station and a first selected one of said plurality of mobile stations, wherein said first selected mobile station maintains at least a second communication link with at least a second base transceiver station of said wireless network, and 2) allocating said a first data traffic channel associated with said terminated first communication link to establish a communication link with said accessing mobile station.

30. (Original) The wireless network as set forth in Claim 29 wherein said channel allocator is capable of determining if one of said plurality of data traffic channels associated with said first base transceiver station is unused prior to terminating said first communication link between said first base transceiver station and said first selected mobile station.

31. (Original) The wireless network as set forth in Claim 30 wherein said channel allocator allocates an unused one of said plurality of data traffic channels associated with said first base transceiver station to establish a communication link with said accessing mobile station in lieu of terminating said first communication link and allocating said first data traffic channel associated

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with said terminated first communication link to establish a communication link with said accessing mobile station.

32. (Original) The wireless network as set forth in Claim 29 further comprising a memory coupled to said channel allocator, wherein said memory is capable of storing status data associated with said plurality of communication links maintained by said first base transceiver station with said plurality of a mobile stations.

33. (Original) The wireless network as set forth in Claim 32 wherein said status data comprises a received signal strength indicator associated with each of said plurality of communication links.

34. (Original) The wireless network as set forth in Claim 33 wherein said status data comprises handoff state data indicating whether each mobile station associated with each of said communication links maintains communication links with at least two base transceiver stations.

35. (Original) The wireless network as set forth in Claim 34 wherein said channel allocator determines a weakest received signal strength indicator associated with one of said plurality of mobile stations maintaining communication links with at least two base transceiver stations.

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36. (Original) The wireless network as set forth in Claim 35 wherein said channel allocator selects said communication link associated with said weakest received signal strength indicator to be said terminated first communication link.

37. (Original) For use in a wireless network comprising a first base transceiver station capable of establishing and maintaining a plurality of communication links with a plurality of mobile stations by means of a plurality of data traffic channels, a method for allocating the plurality of data traffic channels comprising the steps of:

detecting an access request message received from an accessing one of said plurality of mobile stations;

in response to the access request message detection, terminating a first communication link between the first base transceiver station and a first selected one of the plurality of mobile stations, wherein the first selected mobile station maintains at least a second communication link with at least a second base transceiver station; and

allocating a first data traffic channel associated with the terminated first communication link to establish a communication link with the accessing mobile station.

38. (Original) The method set forth in Claim 37 further comprising the step of determining if one of the plurality of data traffic channels associated with the first base transceiver station is unused prior to terminating the first communication link between the first base transceiver

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station and the first selected mobile station.

39. (Original) The method set forth in Claim 38 further comprising the step of allocating an unused one of the plurality of data traffic channels associated with the first base transceiver station to establish a communication link with the accessing mobile station in lieu of terminating the first communication link and allocating the first data traffic channel associated with the terminated first communication link to establish a communication link with the accessing mobile station.

40. (Original) The method as set forth in Claim 37 further comprising the steps of:
determining a weakest received signal strength indicator associated with one of a plurality of mobile stations maintaining communication links with the first base transceiver station and at least one other base transceiver station; and
selecting the communication link associated with the weakest received signal strength indicator to be the terminated first communication link.